

ABSTRACT

Provided is a thermoplastic resin composition comprising (A) a styrene resin, (B) a propylene resin and (C) a hydrogenated block copolymer comprising at least two polystyrene blocks Xs and at least one polybutadiene block Y, with at least 70 wt.% of the double bonds of the polybutadiene of the polybutadiene block Y having been hydrogenated, wherein the hydrogenated block copolymer (C) has a styrene content of 40 to 80 wt.%; a 1,2-bound amount of the polybutadiene block Y is 30 to 80 wt.%; a weight ratio of the component (A) to the component (B) is 95:5 to 5:95; the component (C) is contained in an amount of 2 to 30 parts by weight based on 100 parts by weight of the components (A) and (B); and at least 50% of the component (C) exists at the interface between a phase of the component (A) and a phase of the component (B). Existence of this component (C) makes it possible to yield a thermoplastic resin composition having excellent heat resistance and oil resistance and having comparable tensile elongation properties.

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(21) International Application Number: PCT/US92/09091 (22) International Filing Date: 27 October 1992 (27.10.92) (30) Priority data: 07/811,350 20 December 1991 (20.12.91) US 07/859,207 27 March 1992 (27.03.92) US (60) Parent Application or Grant (63) Related by Continuation US 07/859,207 (CIP) Filed on 27 March 1992 (27.03.92) (71) Applicant (for all designated States except US): THE DOW CHEMICAL COMPANY [US/US]; 2030 Dow Center, Abbott Road, Midland, MI 48640 (US).		(72) Inventors ; and (75) Inventors/Applicants (for US only) : SWARTZMILLER, Steven, B. [US/US]; 2901 Valorie Lane, Midland, MI 48640 (US). DONALD, Robert, J. [US/US]; 5503 Win- chester Court, Midland, MI 48640 (US). BONEKAMP, Jeffrey, E. [US/US]; 2901 Braley Court, Midland, MI 48640 (US). (74) Agent: DELINE, Douglas, N.; The Dow Chemical Com- pany, Patent Department, P.O. Box 1967, Midland, MI 48641-1967 (US). (81) Designated States: AU, CA, JP, KR, US, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE). Published <i>With international search report.</i>
(54) Title: THERMOFORMABLE, CHEMICAL RESISTANT POLYMER BLENDS (57) Abstract A thermoformable chemical resistant polymer blend, useful in the preparation of refrigerator and freezer liners compris- ing: A) from 45 to 70 parts by weight impact modified monovinylidene aromatic polymer, comprising from 1 to 25 weight percent of a rubber and 75 to 99 weight percent of a monovinylidene aromatic polymer matrix having a molecular weight (Mw) from 50,000 to 400,000, said weight percents being based on the total weight of said impact modified, vinylaromatic polymer; B) from 15 to 40 parts by weight of an olefin polymer, selected from the group consisting of homopolymers of ethylene or propylene and copolymers of ethylene with one or more C ₄₋₈ -olefins; and C) from 5 to 25 parts by weight of a compatibilizing polymer, adapt- ed to increase interfacial adhesion between components A) and B), components A) and B) or components A), B) and C) existing in said blend as co-continuous phases, and the sum of A), B) and C) being 100 parts.		

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